

What is claimed is:

- 1        1.    A method comprising:  
2        receiving a data sequence in a receiver having a  
3 plurality of lanes;  
4        detecting a predetermined character in the data  
5 sequence in a first lane; and  
6        tracking a time period until the predetermined  
7 character is detected in the plurality of lanes.
  
- 1        2.    The method of claim 1, further comprising  
2 resetting the receiver if a predetermined number of cycles  
3 is exceeded before the predetermined character is detected  
4 in the plurality of lanes.
  
- 1        3.    The method of claim 1, further comprising  
2 realigning the data sequence based on when the  
3 predetermined character is detected in each of the  
4 plurality of lanes.
  
- 1        4.    The method of claim 3, further comprising  
2 transmitting the realigned data sequence from the receiver  
3 after the predetermined character is detected in the  
4 plurality of lanes.

1           5.    The method of claim 3, further comprising  
2   determining whether the predetermined character is received  
3   simultaneously on the plurality of lanes.

1           6.    The method of claim 1, wherein the data sequence  
2   comprises a training sequence.

1           7.    The method of claim 1, wherein the data sequence  
2   is byte striped.

1           8.    A method comprising:  
2        receiving data packets on a plurality of channels of a  
3   receiver;  
4        determining whether the data packets are misaligned  
5   while the data packets are maintained in buffers  
6   corresponding to the plurality of channels; and  
7        aligning the data packets if the data packets are  
8   misaligned.

1           9.    The method of claim 8, wherein determining  
2   whether the data packets are misaligned comprises analyzing  
3   whether a predetermined value is received on each of the  
4   plurality of channels within a first time period.

1           10.   The method of claim 8, further comprising  
2   transmitting the data packets in an aligned manner.

1        11. The method of claim 10, further comprising  
2 holding the data packets until each of the buffers has a  
3 predefined depth.

1        12. The method of claim 8, further comprising  
2 realigning the data packets if the data packets become  
3 misaligned.

1        13. The method of claim 8, wherein the data packets  
2 are byte striped.

1        14. An apparatus comprising:  
2 buffers to store data packets from a plurality of  
3 channels; and  
4 a state machine coupled to the buffers to deskew the  
5 data packets while the data packets are stored in the  
6 buffers.

1        15. The apparatus of claim 14, wherein the state  
2 machine is adapted to hold the data packets in the buffers  
3 until a predetermined character is present in each of the  
4 buffers.

1        16. The apparatus of claim 15, further comprising a  
2 counter to count cycles occurring after receipt of a first  
3 data packet having the predetermined character.

1        17. The apparatus of claim 14, further comprising a  
2 plurality of state machines, each corresponding to one of  
3 the plurality of channels.

1        18. The apparatus of claim 14, wherein the data  
2 packets comprise InfiniBand data packets.

1        19. An article comprising a machine-readable storage  
2 medium containing instructions that if executed enable a  
3 system to:

4        receive a data sequence in a receiver having a  
5 plurality of lanes;

6        detect a predetermined character in the data sequence  
7 in a first lane; and

8        track a time period until the predetermined character  
9 is detected in the plurality of lanes.

1        20. The article of claim 19, further comprising  
2 instructions that if executed enable the system to reset  
3 the receiver if a predetermined number of cycles is  
4 exceeded before the predetermined character is detected in  
5 the plurality of lanes.

1        21. The article of claim 19, further comprising  
2 instructions that if executed enable the system to  
3 determine whether the data sequence is misaligned while the  
4 data sequence is maintained in buffers corresponding to the  
5 plurality of lanes.

1        22. A system comprising:  
2        a switch fabric;  
3        a plurality of buffers coupled to the switch fabric to  
4 receive data packets from a plurality of channels; and  
5        a state machine coupled to the plurality of buffers to  
6 deskew the data packets while the data packets are received  
7 in the plurality of buffers.

1        23. The system of claim 22, further comprising a host  
2 channel adapter including the plurality of buffers.

1        24. The system of claim 23, wherein the host channel  
2 adapter further includes a counter to count cycles  
3 occurring after receipt of a first data packet having a  
4 predetermined character.

1        25. The system of claim 22, wherein the switch fabric  
2 comprises an InfiniBand switch fabric.